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U. S. DEPARTMENT OF AGRICULTURE

CUT THE COSTS THAT CUT YOUR FARM PROFITS



Farmers' Bulletin 2108
UNITED STATES DEPARTMENT OF AGRICULTURE

FOREWORD

In recent years low prices and higher costs have reduced the income for family living on many farms. In the past, farm families met squeezes on their income by tightening their belts and working harder and longer. However, today this is not a very acceptable method to most families. Furthermore, today it isn't really possible on many farms to meet the squeeze this way, since cash costs are too great.

For most farmers there is need and opportunity to make improvements—small or great—in the farm-family cost and income situation. Management of operating costs, investments, resources, and enterprises has become more and more a key to successful farming.

Although few farmers can make changes that will result in dramatic cuts in costs or increases in income, most farmers can make some profitable adjustments by studying their business and applying the results of science.

This publication points out many possibilities to cut the level of costs or costs per unit by better management. You will have to study your business to see which ones apply in your situation.

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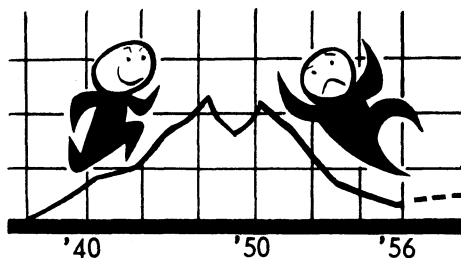
CUT THE COSTS THAT CUT YOUR FARM PROFITS¹



YOUR FARM COSTS MAY DESERVE GREATER ATTENTION

"My pile of Government bonds is getting thinner every day."

The farmer who said this was saying, in his own way, that his income was not enough to pay his bills—that he was dipping into reserves that he'd built up during the past. The experience of this farmer's family is typical of the problem faced by many folks since narrower profit margins have been the rule. Most farmers have seen their income cut. For some, this simply meant less savings; for some, a postponement of repairs and upkeep; for others, a lower standard of living; and for others, very serious adjustments.



New developments and changing prices and costs have made the management of farms more complicated, requiring more and more of the operator's time and energy. Price and cost changes make business changes necessary, and new ways of doing things must constantly be studied and accepted or rejected.

The analysis of farm business records indicates that some farmers manage much better than others. In Minnesota, on similar farms, the top 20 percent earned \$11,000 more net income than the low 20 percent. The way the farms were managed accounted for much of this difference.

Costs have become more and more important to the manager, as the costs of operating farms have gone up rather steadily. In 1955 the outlay for new machinery on Minnesota recordkeeping farms was about \$3,500, while the living costs of the whole family totaled only \$2,900. You can increase net income and cut costs by better management. Better living is the reward.

¹ Prepared by a committee composed of J. B. Claar, chairman; L. M. Vaughan, Virgil Gilman, and E. P. Callahan, of the Farm Management and Production Economics Branch, Division of Agricultural Economics Programs, Federal Extension Service. Grateful acknowledgment is given to several State farm management extension men and to the members of the Federal staff who contributed to this publication.

COSTS AND PRICES ARE YOUR GUIDE



Cost and price relationships guide farmers in deciding what and how much they are going to produce. During and after the war generally favorable prices and a critical need for high production caused farmers to emphasize output more than costs. During such a favorable price period this emphasis was consistent with a desire for high income.

High output, or volume of business, is still important, but farmers are finding more and more that high efficiency must accompany high volume. They're discovering that they must restudy their farm organization, production practices, and marketing procedures in the light of changing prices and costs. Such a restudy is particularly needed by farmers who have built up a big business without the careful attention to costs that is now necessary.



Are You Making Adjustments?

Improvements in production efficiency are continually occurring and are basic to an improved standard of living. Change is normal, and lowered costs per unit are essential to progress.

We'll always face the problem of costs, but they're especially important now. In fact, efficient farming may make the difference between a profit and a loss. Farm families are making changes in their businesses to protect their net income—both immediate and longer run changes. Immediate adjustments include decisions on what expenses should be cut, or what more efficient production or marketing practices might be adopted. Some of the immediate changes may be of an emergency character. Adjustments of a longer run nature often involve more fundamental things, such as the reorganization of your farm or changes in buildings or machinery, to permit more efficient farm operation. It is important that adjustments of both types be the best that you can make in terms of your needs and situation.

In this publication we'll explore the profitable adjustments that you might make in your business, both immediate and longer run, and we'll outline a procedure that you can use to determine their probable effect.



WHAT DO WE MEAN BY "CUTTING COSTS"?

The term "cutting costs" can be used in several ways. To you it may mean cutting the amount of money you are currently spending. Certainly this is an important concept of cutting costs, but there are many farm costs such as your own labor, your home-raised feed, depreciation on your equipment, and frequently interest on money you have invested that are not current cash costs. These noncash costs may better be termed "inputs." It is important that we include all inputs in our concept of "cutting costs." From here on the term *costs* will refer to all farm inputs.

The amount of your total costs may not seem as important to you as the *cost per unit* of product. That is, your costs of producing a bushel of corn or 100 pounds of pork. Of course, costs per unit can sometimes be cut by increases in output as well as by making more efficient use of inputs.

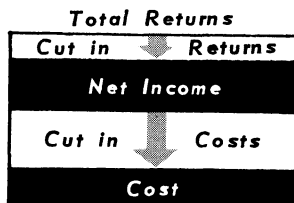
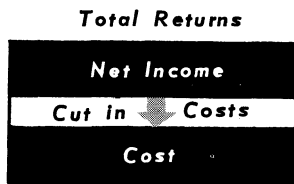
Cutting total costs does not always cut unit costs. For example, cutting out the purchase of needed feed for hogs would lower total costs, but the unit cost of 100 pounds of pork would go up, since output would drop more than costs.

This leaflet will treat all these ways of cutting costs. As we'll see, they are all important to farmers, although neither the lowest total cost nor low costs per unit always result in highest net income. In addition, we will consider increasing income by increasing the *value* of the products.

The following illustrations outline the profitable adjustments that might be made. Lower *unit costs* are a result in every case, but only the first two bring about a lower amount of *total costs*.

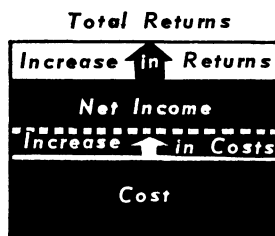
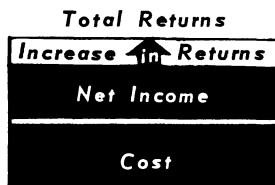
Cutting Costs Directly

- 1.—Sometimes you can reduce costs without reducing output: For example, shopping around to find better buys.
- 2.—Sometimes it will pay to reduce costs even though you'll reduce output, too, because your saving in cost will be greater than the loss in output: For example, (a) reducing the rate of grain feeding to dairy cows when the value of the grain saved per day is more than the value of the milk lost; (b) some farmers may achieve this result by putting land into the soil bank. Although, even with the payment, they may have a slightly smaller gross income, the saving in direct operating costs can result in a higher net income.



Cutting Costs Indirectly

- 1.—Sometimes you can increase output without changing costs: For example, using more efficient or more timely production practices that do not add materially to cost.
- 2.—Sometimes increased costs will be more than offset by an even greater increase in the output: For example, the application of needed fertilizer will increase costs but give you an even greater increase in the value of output.



**CUTTING COSTS ALONE MAY
NOT SOLVE YOUR PROBLEMS**

Of course, many of your problems lie outside your line fences. The general level of prices and costs is of great importance in determining net income, but an individual farmer cannot control it. While you are making every effort as a member of the agricultural industry to solve the problems that lead to low prices, you still have the problem of making your individual business as efficient as you can in the light of the prices and costs that you anticipate.

Opportunity Varies To Cut Costs Profitably

Opportunities to cut costs and at the same time maintain or improve income will vary greatly from farm to farm. On some farms it will be necessary to increase total costs in order to employ efficient techniques or to develop the necessary size of business. On others, changing enterprises in line with the soil, the skill and management ability of the family, or their ability to command capital, may offer the greatest possibilities of increasing income. Some of these changes would increase the amount of total costs; others would lower it. The changes that are called for on your farm will depend on the particular problems that you face.

Cases.—1. Let us consider the small farmer with a low volume of business. His problem is not to reduce costs directly but to build a more adequate, efficient volume of business. Of course, better prices or lower costs would be helpful but would not solve the basic problem, which is low output. At higher prices the size of business may have been barely adequate, but lower prices have reduced his gross income.

The solution may call for more land, probably more capital, as well as an expansion of carefully selected livestock. This would be in line with the trend toward achieving lower unit costs through larger farms with more specialized enterprises. Dairy and poultry enterprises are often used on such farms to make a quick increase in the size of business.

2. The older farmer who owns the resources of a good-sized business and has no pressing need for cash may find it possible to let up on production, cut the total costs, and hold costs down per unit by stressing efficiency. He might trade a small loss in income for less work and more leisure.

3. The situation of the established commercial farmer with a large business is somewhat different. Many such farms have both high total costs and high costs per unit. Some of them became less efficient as they expanded, but good prices made the output profitable, anyway. These farms may be able to make profitable adjustments by cutting costs from their high-cost base and at the same time lowering their volume of output. On some farms efficiency gains and the saving in costs more than offset the loss in volume.

4. The young farmer who has considerable debt and a high family need for income has a different problem. He needs to strive for a big volume of business, and cut unit costs through all the means discussed earlier—in other words, to achieve the most profitable production unit that he can. He may choose to use both his farm and himself a little harder than he would consider wise in the long run. If his efficiency permits, this may involve the expansion of output to provide a bigger business.

Most of these adjustments lower the cost per unit of product but only some of them lower total costs. Some of them make greater inputs necessary. Still, almost every farmer will find many cost items that he can cut directly at a profit. Although many of the savings may be small individually, the total savings he can make by watching costs closely may be substantial.

REMEMBER THE NATURE OF DIFFERENT COSTS



In studying costs to determine which changes should be made, you will find it helps to keep in mind the nature of various costs and their relation to returns.

Some Costs Are Fixed

Some cost items are pretty much fixed in short periods and are always very sticky. These are property taxes and interest on money you owe or have invested in the land yourself. Irrigation and drainage costs may be sticky, too. You can cut these costs only by making more effective use of them. You use these expense items more effectively when you spread them over more output.

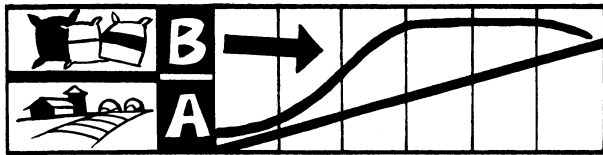
Another important group of costs are not quite so fixed, but still you cannot reduce them quickly. These are the depreciation and investment in buildings and to some extent in machinery. In the longer run, as these items wear out, you have the opportunity to attempt to cut them. You may have to treat family labor in this category also when it is available for use and will not be employed elsewhere.

Some Costs Vary With Output

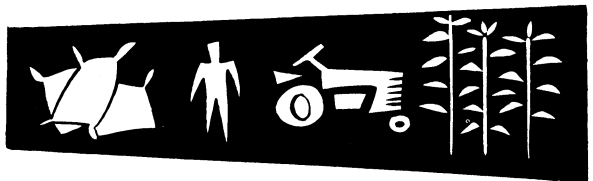
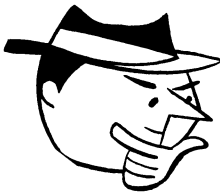
Other costs vary with output, such as fertilizer, fuel, labor, feed, seed, and crop expenses. These are direct operating costs and can be cut more readily. You can increase or decrease the money spent on these, and output will nearly always be affected. The big problem here is whether it pays to cut them and, if so, how much.

Some of them vary in direct proportion to output, like baling wire, or milk containers. Line A in the chart shows this type of cost.

The decision is complicated, however, by the fact that many other costs do not vary directly with output. When you use only a little of a cost item, your returns may be very high; but as you use more of it, the added returns sooner or later grow smaller until it no longer pays to use more of the item. Expenditures for fertilizer or feed are of this kind. Line B in the chart shows such a cost item.



In fact, before the point of no profit is reached, returns to added units may have dropped to where it would pay better to start increasing another cost item. You've done the best you can when the last quantity you apply gives about the same return that it would earn in the best of alternative uses.



One Cost Item May Be Substituted for Another

Machinery can substitute for labor, and one feed can substitute for another. Costs can be cut by using more of the cheaper item and less of the more expensive one. The best



combination depends on comparative prices of the items. The Farm Cost Situation, issued by the Department of Agriculture twice a year, shows the current changes in cost rates.

NET INCOME COMES FROM YOUR WHOLE FARM



You pay your bills and achieve your goals out of the net income from the farm as a whole rather than from any of its parts. Therefore, you need to examine the whole farm and home as a unit to decide what internal changes are called for. Net income is determined by both costs and returns, so you cannot focus on costs and ignore the returns that are always affected by them. Apart from costs, a satisfactory volume of business, careful selection of enterprises that fit the farm and the family's ability, efficient practices that produce good yields of quality crops and livestock, and efficient marketing are also requirements of a successful business.



Low Costs Often Inconsistent With Desire for High Net Income

A good net income is needed to achieve the things that most farm families want. Farming at a low cost is a worth-while goal, but we must pursue this goal in the light of the requirements for a successful business outlined above.

As discussed above, cutting some costs directly is likely to result in a lower net income, since returns may drop more than the cut in costs. In fact, sometimes it will be necessary to increase costs in order to achieve the necessary business volume or an efficient size of enterprise, or to adopt efficient methods and techniques. All these are ingredients of all successful farms. Unless substantial gains in efficiency occur at the same time, cutting the amount of inputs can result in reduced net income and higher costs per unit.

Low Costs Per Unit Not Always Consistent With Highest Income

1. Low costs are frequently related to the prices received for the product. The low-cost producer (even the low-unit-cost producer) may not make the most net income, because of lower prices received. Costs are related to prices received in two ways:

(a) Costs need to be considered in relation to the quality of the product. In beef production, for example, the lowest cost beef per pound may bring a substantially lower price and less net return to the owner than beef which costs more to produce.

(b) Costs need to be considered in relation to marketing. In egg production, for example, you usually receive higher prices from sales in October, November, and December. Although it costs more to produce eggs for this market, you frequently make a larger net income by doing so.

2. Unless prices are very low, it pays to expand output beyond the *lowest unit* cost per bushel of corn or hundred pounds of pork. Of course, it is always good business to produce a certain amount of the product as cheaply as possible; but if prices are attractive it will pay to expand the amount of the product even though the cost per unit rises. For example, at favorable prices it may pay to expand pork production even though at the new output it costs you a little more to produce 100 pounds of pork.



WHICH CHANGES SHOULD YOU MAKE?

Sometimes, owing to a shortage of capital or credit, farmers are obliged to cut out activities that pay. This is frequently an emergency measure, and cash costs may be the focus of attention. Since some costs produce greater income than others—or carry with them greater risk—your job as the manager is to cut those expenditures first that are adding the least to your income, that carry the greatest risk, or that you can postpone without serious effects.

Some expense items make up a much greater part of the cost of farming than others. You can make the greatest cuts in farm costs by giving special care to such expenses. Although major expense items vary with the type of farm and its location, you can get a rough idea of them percentagewise from table 1. There is considerable variation, but feed, machinery, and labor are the major costs on many types of farms. The decision whether these should be cut and how much depends on their relationship to the net farm income and to family desires. To decide which ones to change, you need to figure the gains and losses in income by varying these items. This can be done by using the budgeting techniques that will be shown later.

TABLE 1.—*Distribution of cash farm expenditures, specified types of farms, 1955*¹

Type of farm	Power and ma- chin- ery ²	Hired labor ³	Fertil- izer and lime	Feed and seed ⁴	Live- stock	Build- ings and fences	Taxes	Other
	Per- cent	Per- cent	Per- cent	Per- cent	Per- cent	Per- cent	Per- cent	Per- cent
Dairy farms:								
Central Northeast.....	27	8	4	37	3	7	8	6
Eastern Wisconsin.....	44	5	4	19	1	10	7	10
Western Wisconsin.....	41	6	4	21	1	9	9	9
Corn Belt farms:								
Hog-dairy.....	36	9	5	24	1	9	8	8
Hog-beef raising.....	36	7	4	28	1	6	11	7
Hog-beef fattening.....	19	5	2	18	41	5	6	4
Cash grain.....	44	6	11	14	1	6	15	3
Tobacco farms:								
Tobacco-livestock (Kentucky).....	29	22	14	10	.....	8	12	5
Tobacco-cotton (North Carolina).....	23	36	13	8	.....	9	2	9
Cotton farms:								
Southern Piedmont....	36	29	16	7	1	5	2	4
Black Prairie, Texas...	48	30	2	8	.....	4	3	5
High Plains, Texas (nonirrigated).....	66	17	.....	7	1	2	5	2
High Plains, Texas (irrigated).....	56	28	2	3	.....	⁵ 8	2	1
Spring wheat farms (Northern Plains):								
Wheat-small grain-live- stock.....	66	10	1	4	1	7	9	2
Wheat-corn-livestock...	58	8	.....	9	2	6	11	6
Wheat-roughage-live- stock.....	66	4	.....	12	1	6	9	2
Winter wheat farms:								
Southern Plains.....	56	6	2	13	1	6	12	4
Wheat-pea (Washing- ton and Idaho).....	52	13	10	5	.....	4	9	7
Sheep ranches:								
Northern Plains.....	21	25	.....	25	6	2	10	11
Southwest.....	15	13	.....	23	27	6	8	8
Cattle ranches:								
Northern Plains.....	44	14	.....	6	6	3	14	13
Intermountain region..	33	12	.....	25	5	3	19	3
Southwest.....	23	7	.....	33	13	7	10	7

¹ The Farm Cost Situation, November 1956, Agricultural Research Service, USDA.

² Including ginning, hauling, and other machine work hired.

³ Including payments to croppers.

⁴ Including cost of grazing permits.

⁵ Including irrigation wells and water-distribution systems.

What Are Your Major Cash Costs?

	Cash outlay— amount	Percentage of total
Total		
Machinery		
Labor		
Fertilizer and lime		
Feed and seed		
Livestock		
Buildings		
Taxes		
Other		

Evaluate Your Present Program

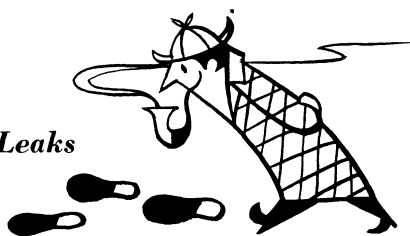
The first step to making profitable adjustments in the business is to take a hard look at your present program. What are its weak spots? What inputs are being made that aren't paying off? In the light of costs and anticipated prices what changes are needed?

Although the size of your farm, its soil quality, the weather, and your market outlets place restrictions on the earning power of your farm, your ability as a manager is an important factor in how well you do. One good way to find your weaknesses as a manager is to keep records on your business and to compare them with selected standards of accomplishment.

There are some crop and livestock enterprises that are better suited than others to your region, your farm, your management, and your ability to carry risk. Few farmers are equally skilled with various enterprises that they might have. Your ability and skill with various enterprises may be the major factor in determining your farm organization.

The following check sheet indicates some of the points you should consider in looking for weak spots in your business. Some of the questions may not apply to your farm and there may be other questions that you should consider. Although you can't give definite answers to some of them, you can find them useful in sizing up your farm as a unit. In other words, the answers may be what you think the situation is on your farm. Talk them over with your county agent. He can provide you with standards of accomplishment so that you can check yourself, as well as consult with you as you decide what changes would be wise.

Track Down Your Business Leaks



Suggestions for farm management check sheet

- I. Do you have an adequate volume of business?
 - A. Do you employ more than 12 months of labor productively? -----
(If less than 12 your business is probably too small.)
 - B. Is there "room" in your sales for a satisfactory profit? -----
Amount of your sales for last 3 years. ----- Next year. -----
(List from income tax return or records.)
 - C. Do you have enough resources to permit an efficient business? -----
- II. Do your crops fit the farm?
 - A. Is erosion under control? -----
 - B. Are you able to keep up with the work? -----
 - C. Are you growing high-profit crops that are suited to your farm? --
 - D. Are you maintaining or increasing soil fertility? -----
- III. Are you producing crops efficiently?
 - A. Are your yields above those of similar farms in the neighborhood? -----
 - B. Have you checked your fertilization rates? -----
 - C. Is your drainage adequate? -----
 - D. Have you had a recent soil test? -----
 - E. Do you try to use the latest proven production practices? -----
- IV. Do your livestock fit the farm?
 - A. Can you keep up with the livestock work? -----
 - B. Do your livestock add the business volume you need? -----
 - C. Would more livestock increase your net income? -----
 - D. Are your enterprises of an efficient size? -----
- V. Are you efficient with the livestock you have?
 - A. Are your production levels above those of similar farms in the neighborhood? -----
 - B. Are your feed costs in line with good standards? -----
 - C. Are you efficient with all classes? -----
 - D. Do you produce high-quality products? -----

VI. Do you select and use machinery efficiently?

- A. Are your machinery and equipment costs per acre in line? -----
(Add gas and oil, repairs, machinery depreciation, farm share of electricity, and machine hire, from income tax form. Divide by tillable acres. Check with good standards.)
- B. Do you have enough machinery to keep up with your work? -----
- C. Are you well satisfied with the machines you have? -----
- D. Do expensive items that you own have enough annual use? ----

VII. Are your buildings adequate?

- A. Are your buildings adequate for the present program? -----
- B. Are you making full use of them at present? -----
- C. Do your buildings allow labor and machinery to be used efficiently? -----
- D. Do you keep stored crops in good condition? -----

VIII. Do you use your labor efficiently?

- A. Are your labor costs per acre in line? -----
(Months of labor available, times monthly wage rate, divided by tillable acres. Check with good standards.)
- B. Are you kept busy at productive work? -----
(You can check your workload by obtaining appropriate standards for your county; 225 to 250 days per man is a reasonable workload.)
- C. Are you timely with all operations? -----

IX. Do you need more capital?

- A. Do you have adequate operating capital? -----
- B. Do you use credit when additional capital is needed in the business? -----

X. Do you market your products effectively?

- A. Do you plan to sell on the seasonally high markets? -----
- B. Do you produce high quality products? -----
- C. Have you carefully selected the best outlet or method of sale? ----

Study carefully the problem areas indicated by a *No* answer. They may indicate leaks in your business.

Budgeting Through Proposed Changes

The second step to making wise changes is doing a little figuring to see if the things you are considering would really pay off in terms of your needs; that is, more income, more leisure, and so forth. This requires budgeting through the probable effect of changes on the business. This simply means figuring what changes would occur in your business if you actually made the changes that you are considering. It requires figuring the gains and losses in income and costs. The check sheet and the budgeting procedure

form a team. The check sheet may have shown certain changes that you might profitably make. By inserting these anticipated changes in the budget form below and following through the changes in income and expense, you can test their effect more carefully.

Partial Budget

Adjustment:

A. Additional returns:

.....	\$
.....	\$
Total additional returns	\$

B. Reduced costs:

	<i>Annual ownership</i> ¹	<i>Operating</i>
.....	\$	\$
.....	\$	\$
.....	\$	\$
.....	\$	\$
Subtotal	\$	\$

Total reduced costs

Total of additional returns and reduced costs per year

C. Additional costs:

	<i>Annual ownership</i>	<i>Operating</i>
.....	\$	\$
.....	\$	\$
.....	\$	\$
.....	\$	\$
Subtotal	\$	\$

Total additional costs

D. Reduced returns:

.....	\$
.....	\$
Total reduced returns	\$

Total of additional costs and reduced returns per year

E. Net change in farm income per year:

\$

(Total of additional costs and reduced returns subtracted from total of additional returns and reduced costs per year.)

¹ Annual ownership costs are taxes, insurance, interest, depreciation, and possible storage.

WISE Management
Can Make of the Future
Something More Than Chance
